

# PHENIX WEEKLY PLANNING

8/28/2008

Don Lynch

Technical Support 8/28/08

8/28/08

Genie  
ROOM

## RPC Factory:

Dark Current test stand

in design due 9/30

## Mu Trigger FEE upgrade:

Station 2/3 scaffolding

Done

Station 1 scaffolding

Done

Rack assembly

install in North by 8/30, South by 9/30

LV cable prep

Done

Optical cable prep

Done

N&S platforms Fabricate & install

fabrication complete, North platform is installed, install South by 9/30 (Pearson)

Rebuild Bridge & Eyebrow

Complete by 9/30

Prep work for platforms (water/elec)

in progress finish by 8/30

LV cable installation

Done

optical cable installation

Done

FEE installation N&S sta's. 1,2 & 3

Station 1 & 2N Done, Sta 3N by 9/15, Sta. 1,2 & 3S by 10/31



## Mu Trigger FEE Upgrade (cont'd):

FEE water and dry air installation  
 Install S rack cooling & electric  
 Install FEE's in MMS for RPC test  
 Rack room electronics, etc.  
 Disassemble station1 scaffold  
 Testing

RPC internal review

RPC proptotype installation:

Prep work

move (7) MuID pipes

move gap 5 south cable tray

Rack prep

RPC prototype gas system

Move shielding for installation

RPC prototype cable routing & support

Modify crystal palace & vapor barrier

RPC prototype install

(RPC2 - PHENIX)

(RPC3 - C. Pearson)

Started finish by 9/30

Oct.after CM moves north

Oct.after CM moves north

Sep.- Oct.

complete by Oct 15

Sep.-Nov. Complete by 11/15

Sep.

wait for final installation design

In progress complete by Sep 30

In progress complete by Sep 30

July - Sep [Pearson]

Aug - Sep

July - Sep [Pearson]

Sep. - Oct.

Sep. - Oct.

# Shutdown '08 Schedule, cont'd

Technical Support 2008

## RPC proptotype installation (cont'd):

Install rack in tunnel south

Replace tunnel shielding/Vapor Barrier

Connect electronics/gas

Install by 9/30

Nov. [Pearson]

Sep. - Nov.

## MuTr Decapacitations (Sta. 1 N and MMN)

North: (Station 1 and 3) done

Mike Leitch will be back 9/8/08

in progress (on going fill-in)

Fan Tray maintenance

PC1 west work (needs planning)

Oct. 15

CM Crane Install

[postponed indefinitely?]

HBD Install

Oct. 27

DC East?/West Repairs

Nov. 15

Remove all inst'n equipment

Sta 1 (from south)

Remove by 1/15

Sta 2/3 scaffolds

Remove by 11/15

all other testing equipment

Remove by 12/1

## Prep for shutdown 2009

Gap 5 N piping and cable tray re-loc.

Oct. - Dec

Gap 2 N cable tray & crate re-mounts

Oct. - Dec.

# Shutdown '08 Schedule, cont'd

## Prep for run 9

Begin run 9 Prep	12/1/09
Install all lampshades	Complete by 11/26
Roll in EC	12/22
Pink/White/Blue sheets	12/29
Close shield wall	12/31

## Cryo Start up

Flammable Gas/start shifts	1/1/09
Start physics	1/11/09
End Run 9	1/18/09
	6/30/09

## Other Work

VTX prototype design support	done, for now
NCC prototype design support	In progress finish in Sep
HBD support	as required
VTX fabrication tooling design	Sep - Oct
VTX installation design	Oct - Nov
FVTX design/engineering support	as required

# Shutdown '08 Electrician Work

1) Run Power to new MuTrgr FEE racks on MMN and MMS - *Final design of the reworked North Muon Power Distribution System is set. Nearly all material acquired eithout cost. Paul is m revising the One-Line electrical drawing. CAD approval required...maybe by **next** week. Effort should take ~ 1 week. **The new power cable feed to the MuTrigger rack is installed (2 cables, 1 spare) with no connection to the panel down below. The new North side power panel is installed on the IR North east corner wall. The new 75 KVA transformer for the entire North Arm service is reconditioned and tested satisfactory. The power for the South RPC tunnel Rack(s) to be taken from an existing (spare) breaker in the Muon Tracker power panel. This should take less than 1 day to install.** NO CHANGE*

2) Install power feeds to RPC north & south tunnel racks from IR power panels. – *Plan is to run the cables from the IR to the North tunnel rack locations. The south RPC rack power can be taken from the existing (spare) breakers in the SMI power panel located on the IR south west wall. These cable runs may take a few days to complete due to new power tray runs required into the tunnel areas. **Not done due to lack of manpower – working on other higher priority items.***

# Shutdown '08 Electrician Work, Cont'd.



Technical Support 2008

- 3) Install new UPS in Gas mixing house. **Not done due to lack of manpower – working on other higher priority items.**
- 4) Install power and signal cable tray (ceiling suspended) for new DCM rack row – north of existing DCM racks. - ***on Hold until new floor plan is determined***
- 5) Assist in signal and LV cable installation for MuTr/RPC upgrades as necessary. **Work in progress – Optical and LV cables installed. LV cables (rack end) are coiled on platform deck next to LV rack mount location. Optical patch rack installed with some cables connected into rack. Work on LV rack continues – not expected to be completed until later next week.**
- 6) Upgrade power capacity of Central Magnet power distribution for future bridge rack loads.
  - a) Remove existing 15KVA transformer and install 45KVA unit.
  - b) Install new (larger size) power cable from rack room to Central Magnet distribution breaker panels.

- ***This job is on hold. No new racks in CM this year.***
- 7) Install 120 volt AC power drops into new control room annunciator alarm rack (rack room). **Not done due to lack of manpower – working on other higher priority items.**
- 8) **Ordering parts for South MuTrigger LV rack. Rack plumbing complete. Internal wiring to start maybe end of next week.**
- 9) **Discussions started with Chi and Steve Boose concerning RPC prototype rack for south tunnel.**

8/28/08



## New FEE Platforms & Modified Bridge Parts

Technical Support 2008



Mike Leitch needs access to eyebrow by 9/8

Install new South MuTrggr FEE rack platform by ??

8/28/08



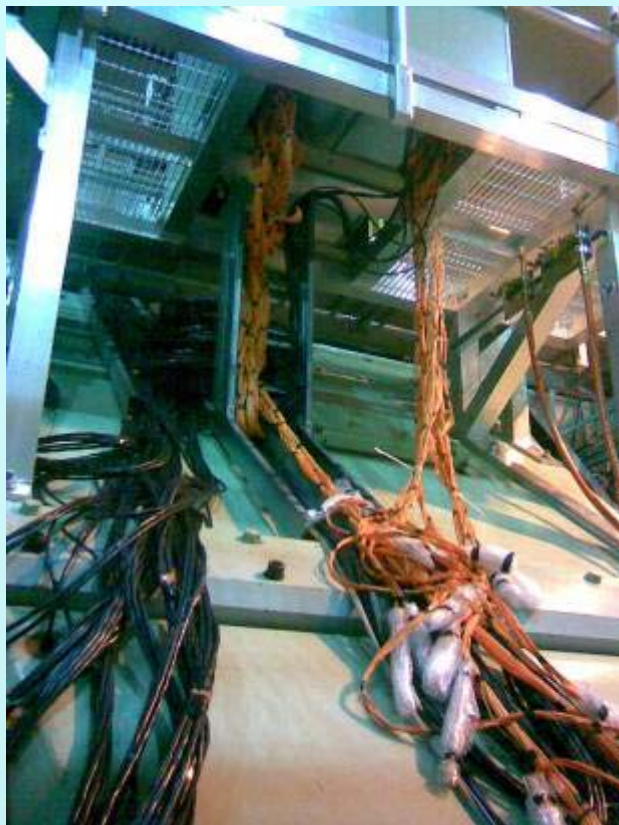


**MuTrgr FEE  
South Rack**

**Ready to be  
installed**

# MuTrigger FEE Rack Utilities

Technical Support 2008



## MuTrigger FEE Installation Prep

Technical Support 2008



8/28/08

# MuTr FEE upgrade status

Tsutomu Mibe (KEK)  
for the onsite upgrade team



# Chassis Status

- Chassis Mount Status:
  - Decided engineering design for Station-1 Bottom Octant (Carter)
  - Waiting for balcony to access Station-3 Top Octant.
  - All other chassis were mounted.
- Water plumbing Status:
  - John T. (full) & Mike Lenz (30%) + Yuta Sada (support)
  - Completed Station 2 Oct. 5, 4, 3, 2, 1, 8
  - ~5 chassis/day, Takes 4 weeks(?)
  - All MuTr power locked out during plumbing work. Delaying MuTr calibration/noise study...

# LV Status

- Station-1 Cables are all installed. New cable supports and guides are mounted by Carter
- LV Rack Construction is completed by Frank.
- LV Rack was moved to platform.
- Distributor Boards are waiting for front panels.
- LV cables will be cut and connected to LV rack by Frank + Itaru, Murakami, Sada
- LV control GUI -> Steve

# Optical Cable

- Station-1 optical cables are installed. Completed chain test. All OK.
- Two dead trunk cables -> Connectors will be replaced by Frank. Tools are to be ordered
- 5 more trunk cables to be delivered this Friday
- Install trunk cables (4 North, 1 South) next week ->Continue Chain test
- Waiting for beam clock distributor boards.

# Signal cables

- 200 FEE-ADTX cables are waiting for installation.
- Need MuTr calibration measurements
- Planning on working in the evenings and holiday (Sep 1<sup>st</sup>)
- 109 more cables to come on Sep 8<sup>th</sup>.

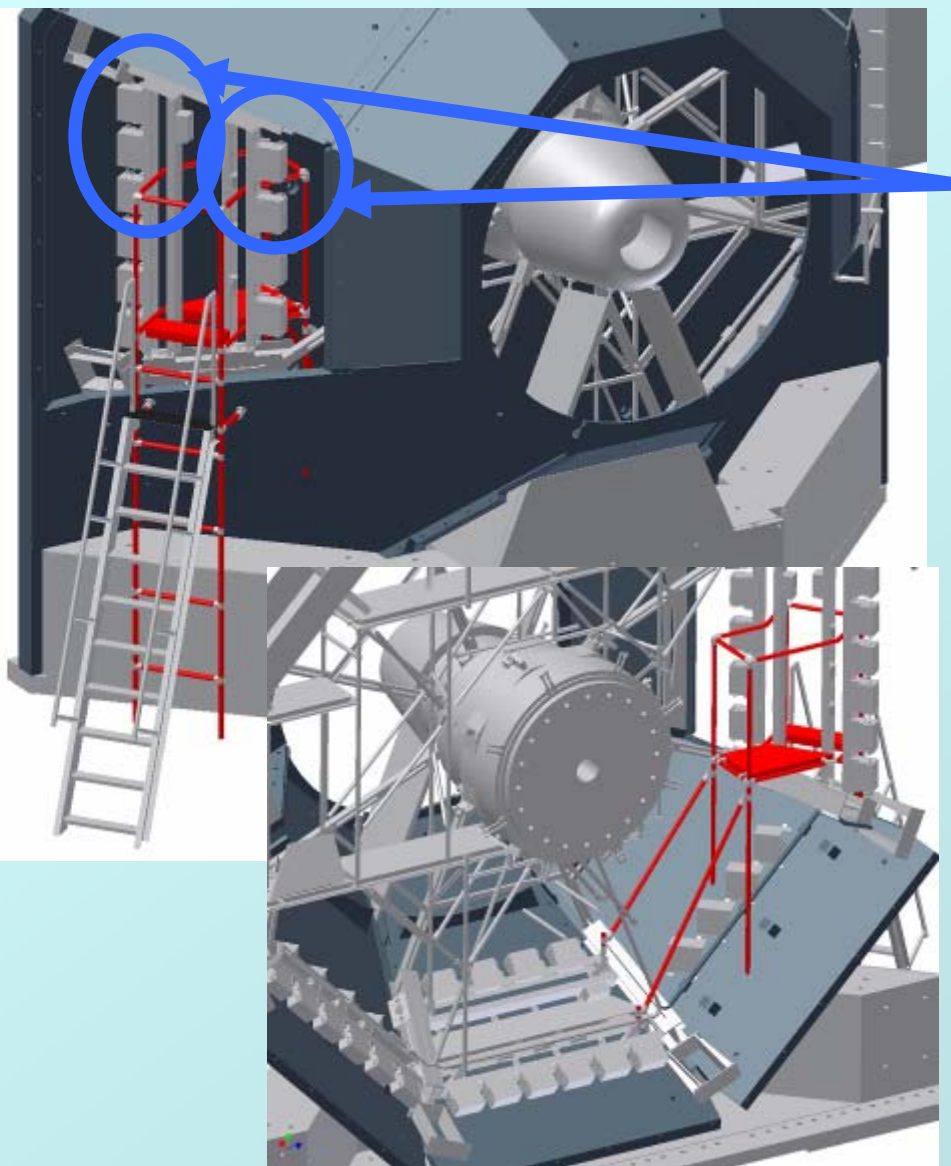




# ADTX board

- Mass production is ongoing.
- 20 boards will be shipped on Sep 8<sup>th</sup>.
- QA test set up is being developed at test bench.
- Start installation from the week of Sep 15?
  - Start with top four octants in Station 1
  - All cables need to be connected and tested before (LV, optical, water).

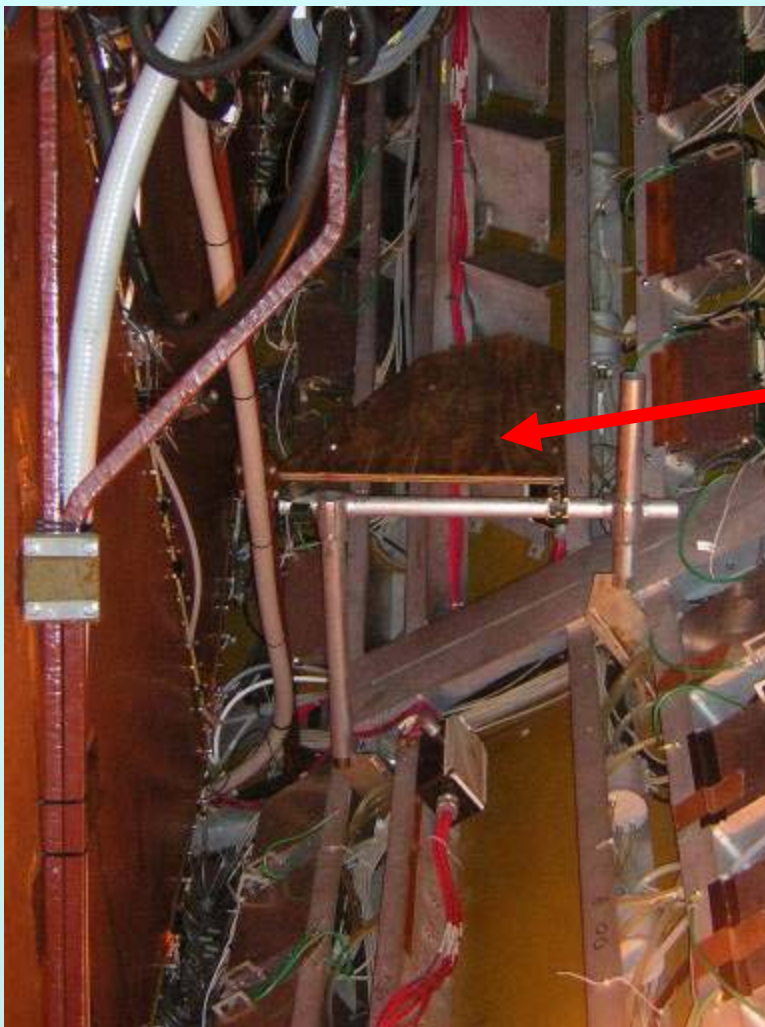
## MuTrigger FEE upgrades in MMS in support of RPC prototypes



To match absorber and prototype RPC's, we need to install new FEE upgrades in these 5 MuTR FEE's

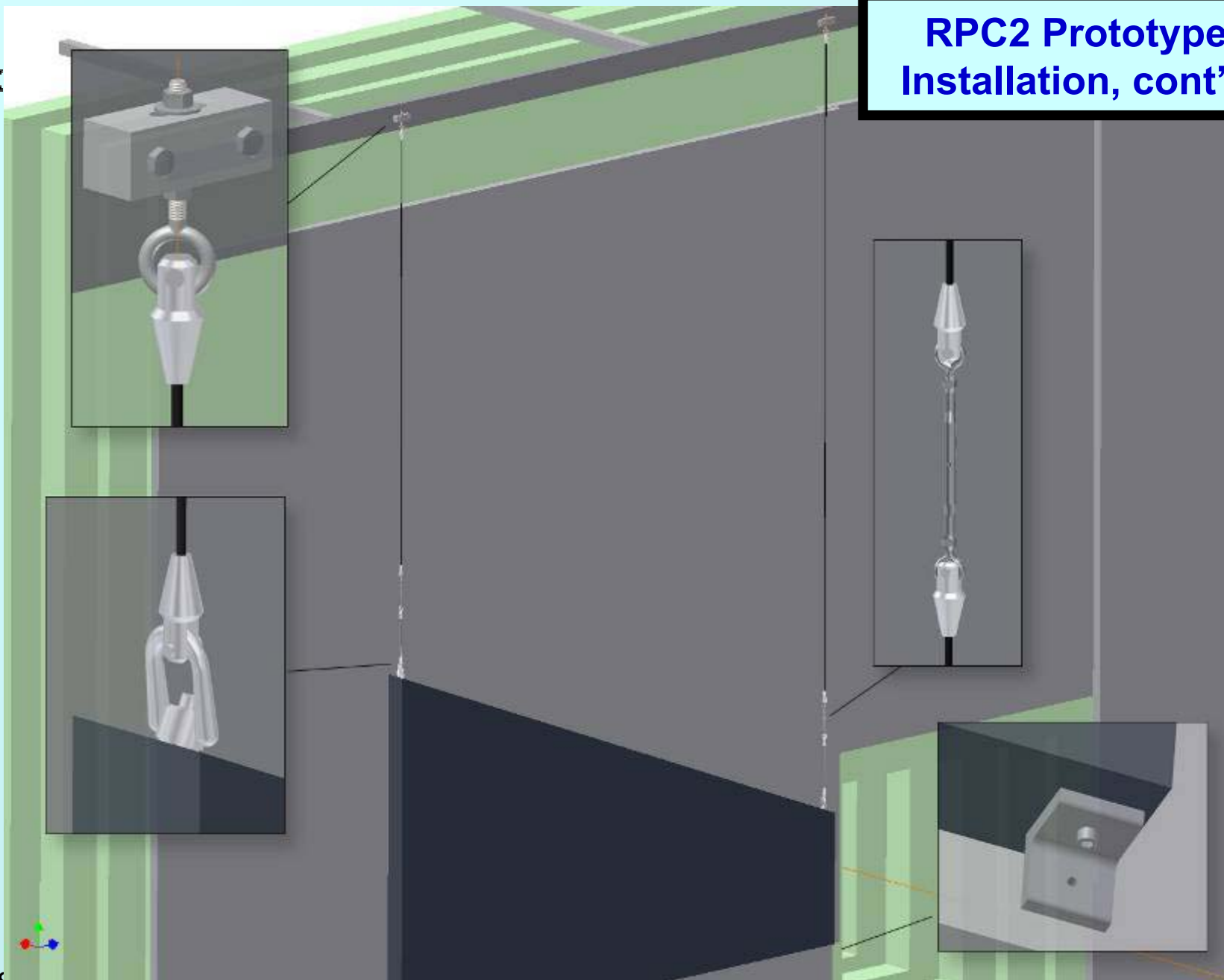
We will develop a plan to access these for installation and testing from a custom work platform (to be designed).

## MuTr Decapacitations



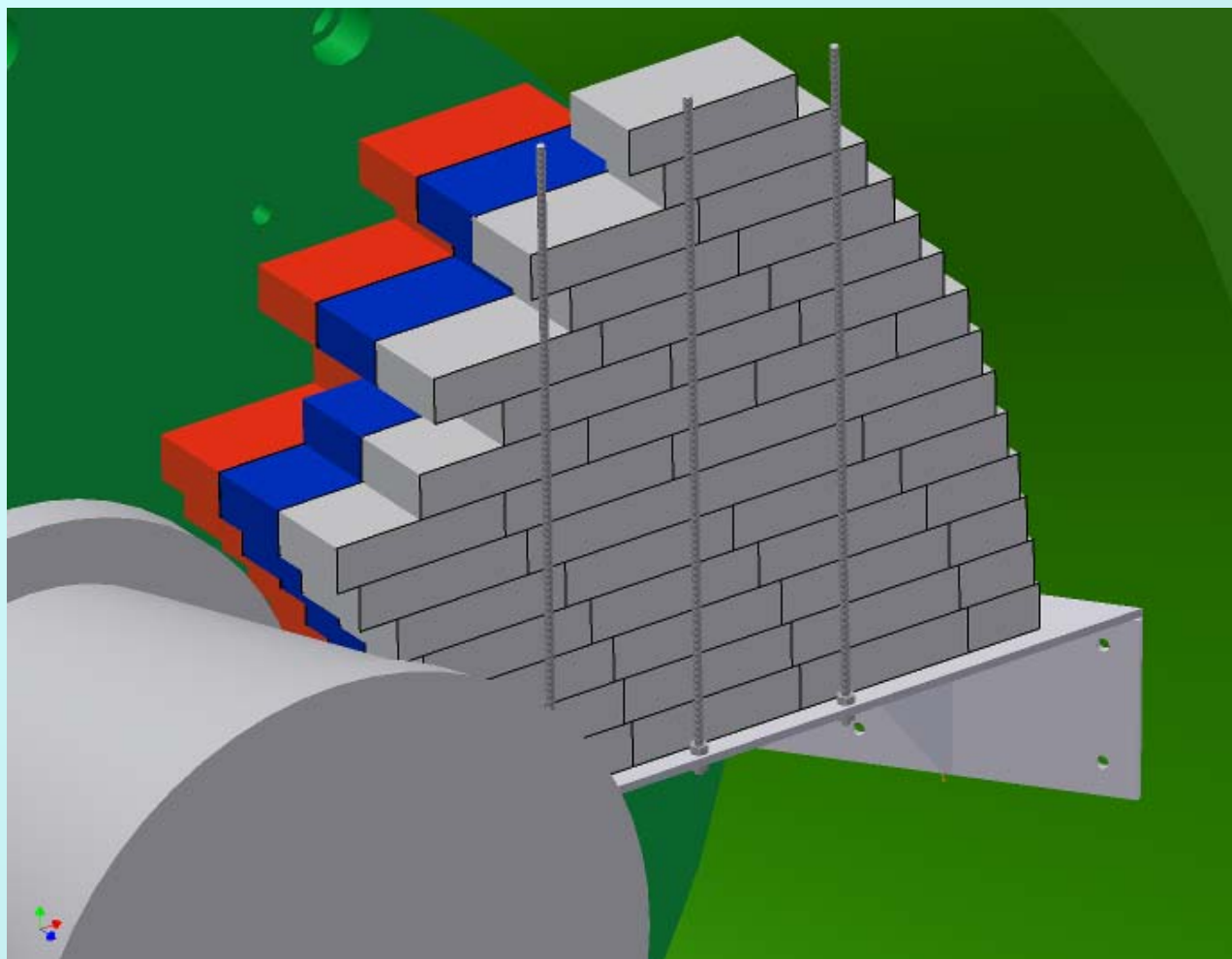
MuTr group needs this setup from last year to work on decapacitations in the south magnet

# RPC2 Prototype Installation, cont'd



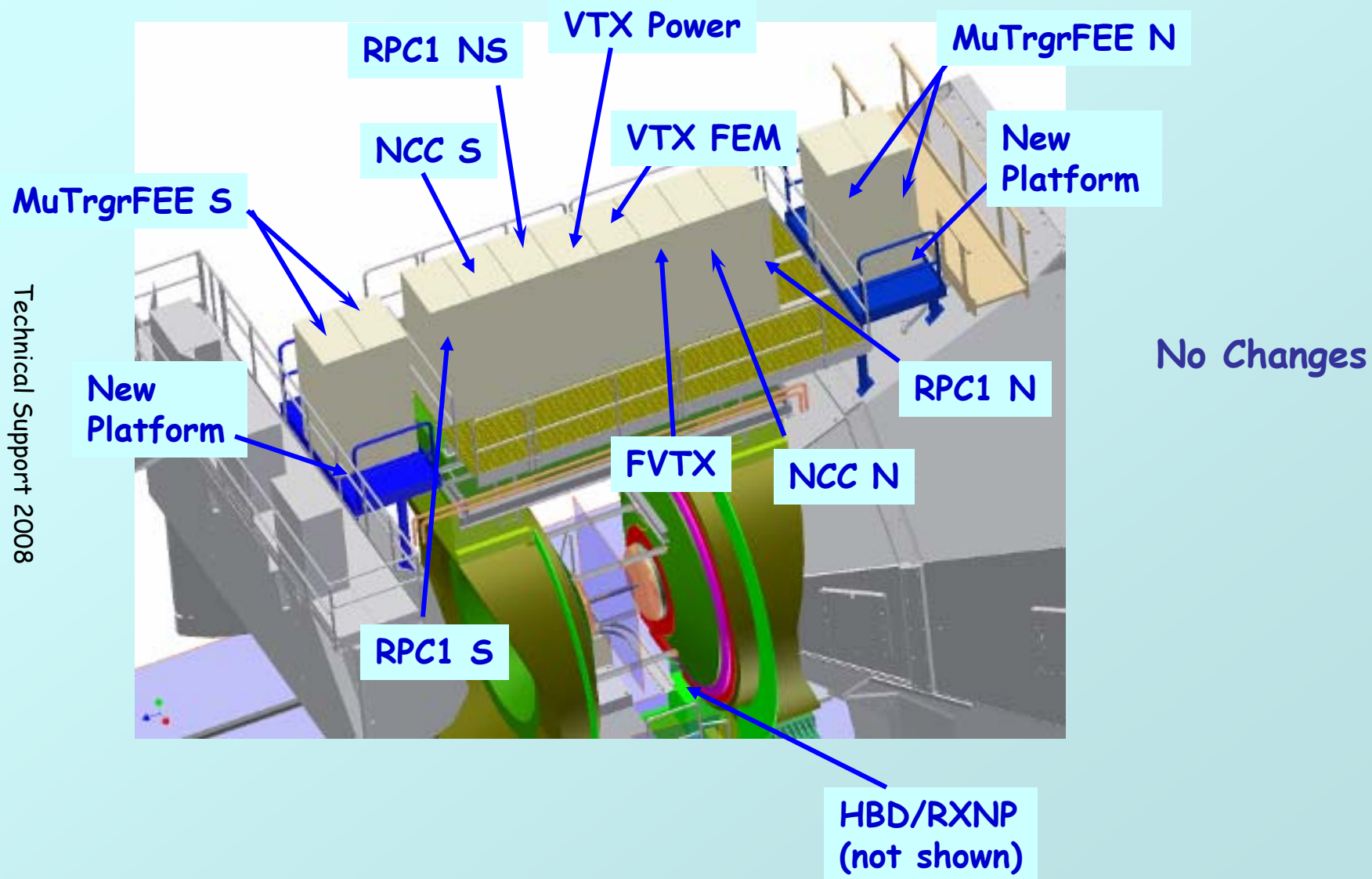


# RPC Absorber Concept



RFQ placed  
with CS

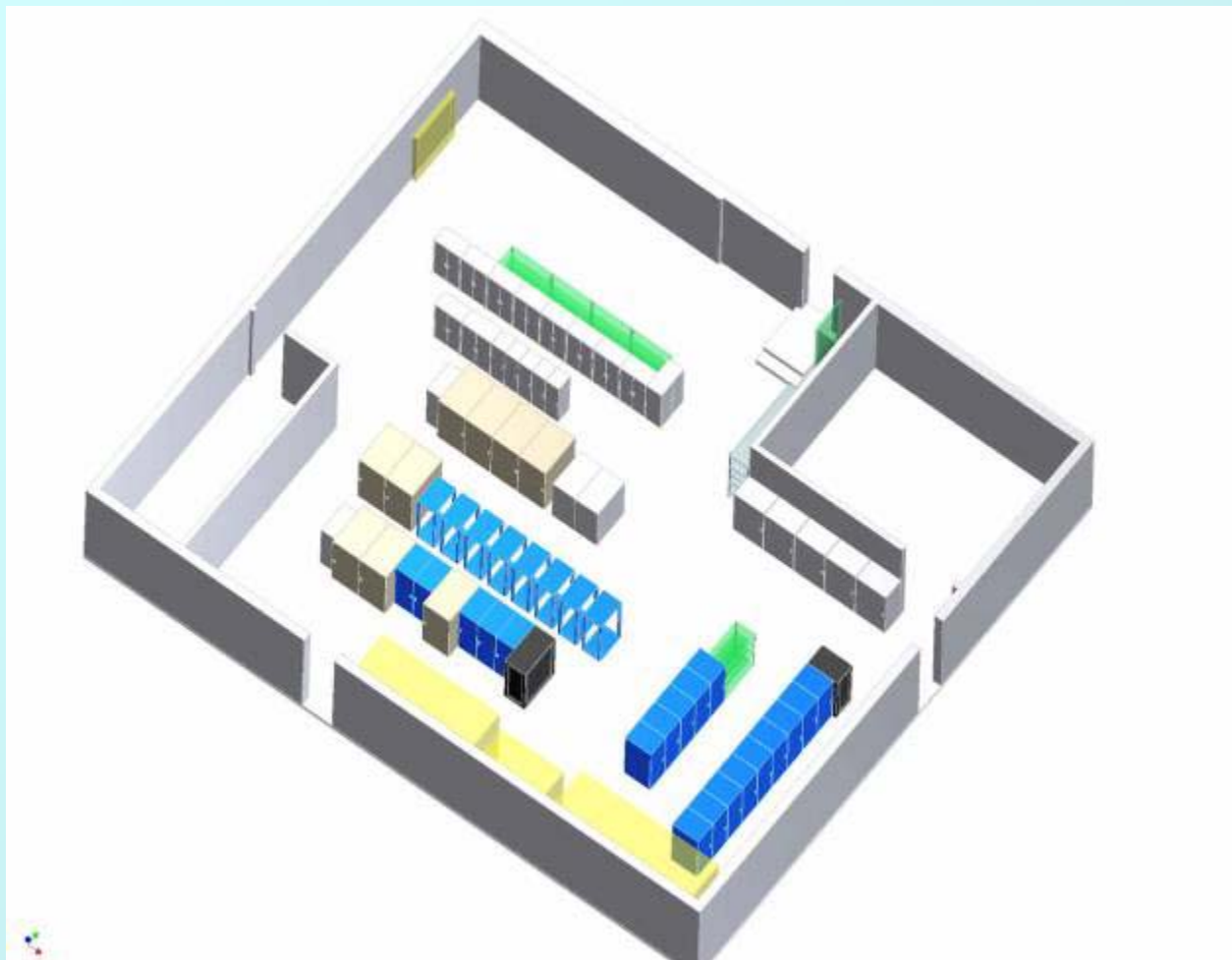
# Detector upgrade Rack allotments



Technical Support 2008

# Rack Room Reorganization

Inventor model in progress



Technical Support 2008

# Safety, Security, etc.



C-A requests that this be covered to prevent theft , etc. (Opaque plastic stapled over is OK.)

We will need new storage boxes to replace rotted existing boxes.

August Injury report is in  
(see next page)

Desk chairs should have 5 legs.  
4 legged chairs are unstable.



## August Injury Report: 6 first Aid cases, 1 DOE reportable, 0 Dart

- Employee fell down steps on way out of building → first aid
- Employee inspecting crane twisted knee → first aid
- Employee installing roof cut forearm → DOE Recordable (dermabond)
- Employee cut finger while cutting tape with a razor blade → first aid
- Employee using grinder experienced puncture wound → first aid
- Employee sat on a chair, chair tipped over injured leg → first aid
- Employee cut hand installing sign → first aid

*Year to date: 60 first aid, 24 Recordable, 13 DART*  
*DOE Targets: n/a first aid, 16 Recordable, 6 DART*



# Where To Find PHENIX Engineering Info

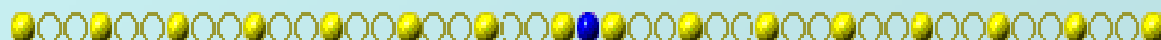


Mystery man at PHENIX

Will he keep the MuTrgr  
FEE project on schedule?

Technical Support 2008

Links for the weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found on the web site:



[http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\\_SSint-page.htm](http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm)